

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification				DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY				PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS (JTRS)			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Cost	78.036	168.498	1.153	284.305	270.481	197.864	97.774
3073 JTRS Common Development							
3073 JTRS Implementation (JTRS-Navy Unique)							
3073 Joint Task Force Wide Area Relay Network (JTF WARNET)	54.342	87.152	0.000	284.305	270.481	197.864	97.774
3020 Multifunctional Information Distribution System (MIDS JTRS-Common)							
3020 Multifunctional Information Distribution System (MIDS JTRS-Navy Unique)	21.794	78.946	1.153	0.000	0.000	0.000	0.000
9999 Congressional Adds	1.900	2.400	0.000	0.000	0.000	0.000	0.000
<p>In FY 2007, Project No. 3073, AMF JTRS and Project No. 3020, MIDS JTRS, efforts were transferred from Program Element (PE) 0604280N to PE 0604280A, to support the revised JTRS joint program development acquisition strategy.</p> <p>In FY08-FY11, Project No. 3073 represents the Navy share (1/3) of the funding associated with all JTRS Development Projects. It includes funding for: AMF JTRS, MIDS JTRS, Ground Mobile Radio JTRS (formerly Cluster 1), Handheld, Manpack, Small Form Fit JTRS Radios (formerly Cluster 5), and the Joint Waveforms Development funding.</p> <p>JTF WARNET funding currently ends in FY06.</p> <p>Congressional Add (Digital Modular Radio (DMR)) currently ends in FY06.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>(AMF JTRS)</p> <p>In February 2005, Mr. Wynne, Acting USD (AT&L) issued a JTRS Acquisition Decision Memorandum (ADM) directing the realignment of the current acquisition management structure for all JTRS programs under the authority of a single JTRS Joint Program Executive Office (JPEO). The ADM states that any obligation or transfer of RDT&E funds, during the current year of execution, for radio, waveform, and common ancillary equipment development associated with any of the JTRS program elements will require the express approval of the JPEO.</p> <p>In November 2003, the Navy & Air Force Service Acquisition Executives directed the merger of Clusters 3 (Navy) and 4 (Air Force) to establish a combined JTRS Cluster, renamed Airborne, Maritime/Fixed Station JTRS (AMF JTRS). On January 21, 2004, USD (AT&L) signed an Acquisition Decision Memorandum (ADM) acknowledging the combination of the two clusters, as well as authorizing the release of the Pre-System Development and Demonstration (SDD) Request for Proposal (RFP) for the AMF JTRS program. Funding represents Navy's portion of AMF JTRS.</p> <p>The Airborne, Maritime/Fixed Station JTRS (AMF JTRS) will be designed to support communications readiness and mission success by providing military commanders with the ability to command, control and communicate with their forces via secure voice, video, and data media forms during all aspects of military operations. The AMF JTRS will be a hardware configurable and software definable radio (SDR) system that provides increased interoperability, flexibility and adaptability to support the varied mission requirements of the warfighter. The AMF JTRS system will provide radio sets that are software definable, multi-band, multi-mode capable, secure, network-centric, and able to provide simultaneous voice, data, and video communications over multiple frequency bands between 2 MegaHertz (MHz) and 2 GigaHertz (GHz), as well as scalable to meet the needs of multiple platforms. As a requirement, the AMF JTRS will operate with legacy equipment and waveforms currently used by civilian and military airborne, surface, subsurface, and fixed station platforms as well as incorporate new waveforms and Cryptographic Equipment Applications (CEAs) as they are developed. As a result of this fielding, legacy radios and cryptographic devices will eventually be phased out through the JTRS implementation effort. This Implementation effort is Navy-specific work being performed as part of the planned migration to transition to the JTRS capability. The Air Force Electronic Systems Center (AF/ESC), PEO C4I and Space, and the Joint Program Executive Office will fulfill the AMF JTRS requirements in a phased approach. Each phase will build on the technological achievements of its predecessor, while at the same time providing expanded capabilities (in both hardware and software). AMF JTRS will incorporate the following key concepts into its design: commonality across JTRS clusters, transformational communications, networking, automation and control, information gateways, and quality of service. The AMF JTRS procurement specifically involves the development of Joint Tactical Radio (JTR) Set and the integration of the Software Communication Architecture (SCA) Compliant waveforms and CEAs provided by the JTRS Joint Waveforms Program Office. This procurement also provides for platform integration support necessary for these capabilities to be integrated into the Maritime and Fixed Station platforms through the Service Integration Kits (SIK).</p> <p>(Joint Task Force Wide Area Relay Network Program Enhancement (JTF WARNET))</p> <p>This program is an NRL initiative that has grown from an Advanced Concept Technology Demonstration (ACTD). This program supports JTRS CONOPS & Tactics, Techniques and Procedures (TTP) development, incorporates Intra-Battle Group Wireless Network (IBGWN) capabilities, supports ADNS Integration and supports Joint Translator Forwarder (JXF.)</p> <p>JUSTIFICATION FOR BUDGET ACTIVITY:</p> <p>This program is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.</p>							

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EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY	R-1 ITEM NOMENCLATURE PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS	
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION (continued):</p> <p><u>(MIDS)</u></p> <p>The MIDS-LVT is a jam-resistant, secure, digital (voice and data) information distribution system, enabling rapid integrated communications, navigation and identification for tactical and command and control operations. The technical objective of the MIDS JTRS program is to transform the current MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant JTRS, while maintaining current Link-16 and tactical air navigation system (TACAN) functionality. MIDS gathers data from multiple sources which provides the platform with a digital view of the battlefield. The MIDS JTRS is designed to be plug-and-play interchangeable for U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, while accommodating future technologies and capabilities. Improvements such as Link-16 enhanced throughput, Link-16 frequency re-mapping, and programmable crypto will also be realized in the MIDS JTRS design. In addition to the Link-16 and TACAN functionality, MIDS JTRS includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms currently in development with the JTRS Joint Waveforms Program Office. Total program requirements include: Terminal development, F/A-18 Level 0 integration, software hosting (Operating Environment/JTRS Joint Waveforms Program Office), Common Link Integration Processing (CLIP) Increment 1 embedding and production transition. The Tactical Targeting Network Technology JTRS Platform Capability Package (TTNT JPCP) involves integration of an advanced low latency, high bandwidth, internet protocol-capable waveform that meets Time Sensitive Targeting Networking Technology requirements. TTNT JPCP program requirements include hardware and software changes, terminal development, qualification, and production transition. The TTNT JPCP is the integration of the TTNT waveform as the specific implementation of the Joint Airborne Networking - Tactical Edge (JAN-TE) waveform.</p> <p><u>(DMR)</u></p> <p>The Digital Modular Radio (DMR) provides improvements for fleet radio requirements in the HF, VHF, and UHF frequency band. The DMR replaces and will be interoperable and backwards compatible with legacy systems. The DMR is a digital, modular, software programmable, multi-channel, multi-function and multi-band (2MHz-2 GHz) radio system.</p> <p>JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.</p>		

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<p>PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 50%;"></th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 20%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>(U) Funding:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY06 President's Budget Submit</td> <td style="text-align: right;">79.454</td> <td style="text-align: right;">250.766</td> <td style="text-align: right;">258.171</td> </tr> <tr> <td>FY07 President's Budget</td> <td style="text-align: right;">78.036</td> <td style="text-align: right;">168.498</td> <td style="text-align: right;">1.153</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-1.418</td> <td style="text-align: right; border-top: 1px solid black;">-82.268</td> <td style="text-align: right; border-top: 1px solid black;">-257.018</td> </tr> <tr> <td colspan="4" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>Nuclear Power Unit Funding Adjustment</td> <td></td> <td></td> <td style="text-align: right;">0.712</td> </tr> <tr> <td>Contractor Support Reduction</td> <td></td> <td></td> <td style="text-align: right;">0.103</td> </tr> <tr> <td>NWCF Civpers Efficiencies</td> <td></td> <td></td> <td style="text-align: right;">-0.103</td> </tr> <tr> <td>Restructure of JTRS program</td> <td></td> <td style="text-align: right;">-80.8</td> <td style="text-align: right;">-258.171</td> </tr> <tr> <td>Small Business Innovative Research (SBIR)</td> <td style="text-align: right;">-1.788</td> <td></td> <td></td> </tr> <tr> <td>Federal Technology Transfer Tax</td> <td style="text-align: right;">-0.021</td> <td></td> <td></td> </tr> <tr> <td>Nuclear Physical Security</td> <td style="text-align: right;">0.004</td> <td></td> <td></td> </tr> <tr> <td>Trusted Foundry</td> <td style="text-align: right;">0.229</td> <td></td> <td></td> </tr> <tr> <td>Inflation</td> <td></td> <td></td> <td style="text-align: right;">1.146</td> </tr> <tr> <td>Fuel Price Adjustments</td> <td></td> <td></td> <td style="text-align: right;">0.003</td> </tr> <tr> <td>CIVPERS Pay Raise Rate Change</td> <td></td> <td></td> <td style="text-align: right;">0.002</td> </tr> <tr> <td>Sec. 8026(f): FFRDC</td> <td></td> <td style="text-align: right;">-0.104</td> <td></td> </tr> <tr> <td>Sec. 8125: Revised Economic Assumptions</td> <td></td> <td style="text-align: right;">-1.142</td> <td></td> </tr> <tr> <td>Congressional Adds</td> <td></td> <td style="text-align: right;">2.400</td> <td></td> </tr> <tr> <td>Congressional Action 1% Reduction</td> <td></td> <td style="text-align: right;">-2.622</td> <td></td> </tr> <tr> <td>Misc. Navy Adjustments</td> <td style="text-align: right;">0.219</td> <td></td> <td style="text-align: right;">-0.710</td> </tr> <tr> <td>Department of Energy Transfer</td> <td style="text-align: right;">-0.061</td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black;">-1.418</td> <td style="text-align: right; border-top: 1px solid black;">-82.268</td> <td style="text-align: right; border-top: 1px solid black;">-257.018</td> </tr> </tbody> </table> <p style="margin-top: 20px;">(U) Schedule:</p> <p>Pre-System Developments & Demonstration contracts awarded to Boeing and Lockheed-Martin on 8 September 2004 for AMF JTRS. MIDS JTRS Phase 2B core terminal contract awarded December 2004. PDR held August 2005. CDR planned March 2006. MIDS JTRS Tactical Targeting Network Technology JTRS Platform Capability Package (TTNT JPCP) Phase 2C contract award planned February 2006 to initiate specification development addendums to the existing Functional and Allocated baselines and to conduct initial TTNT JPCP design efforts. Phase 2D contract award planned first quarter FY 207 for complete TTNT JPCP design, development and qualification.</p> <p style="margin-top: 20px;">(U) Technical:</p>					FY 2005	FY 2006	FY 2007	(U) Funding:				FY06 President's Budget Submit	79.454	250.766	258.171	FY07 President's Budget	78.036	168.498	1.153	Total Adjustments	-1.418	-82.268	-257.018	Summary of Adjustments				Nuclear Power Unit Funding Adjustment			0.712	Contractor Support Reduction			0.103	NWCF Civpers Efficiencies			-0.103	Restructure of JTRS program		-80.8	-258.171	Small Business Innovative Research (SBIR)	-1.788			Federal Technology Transfer Tax	-0.021			Nuclear Physical Security	0.004			Trusted Foundry	0.229			Inflation			1.146	Fuel Price Adjustments			0.003	CIVPERS Pay Raise Rate Change			0.002	Sec. 8026(f): FFRDC		-0.104		Sec. 8125: Revised Economic Assumptions		-1.142		Congressional Adds		2.400		Congressional Action 1% Reduction		-2.622		Misc. Navy Adjustments	0.219		-0.710	Department of Energy Transfer	-0.061				-1.418	-82.268	-257.018
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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 4)

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EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROJECT NUMBER AND NAME 3073 Airborne, Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS)					
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Project Cost	54.342	87.152	0.000	284.305	270.481	197.864	97.774
3073 JTRS Common Development	52.290	77.458	0.000	284.305	270.481	197.864	97.774
3073 JTRS Implementation (JTRS-Navy Unique)	2.052	2.123	0.000	0.000	0.000	0.000	0.000
3073 Joint Task Force Wide Area Relay Network (JTF WARNET)	0.000	7.571	0.000	0.000	0.000	0.000	0.000
<p>In FY 2007, Project No. 3073, Airborne, Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) efforts were transferred from Program Element (PE) 0604280N to PE 0604280A, to support the revised JTRS joint program development acquisition strategy.</p> <p>In FY08-FY11, Project No. 3073 represents the Navy share (1/3) of the funding associated with all JTRS Development Projects. It includes funding for: AMF JTRS, MIDS JTRS, Ground Mobile Radio JTRS (formerly Cluster 1), Handheld, Manpack, Small Form Fit JTRS Radios (formerly Cluster 5), and the Joint Waveforms Development funding.</p> <p>JTF WARNET funding currently ends in FY06.</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>In February 2005, Mr. Wynne, Acting USD (AT&L) issued a JTRS Acquisition Decision Memorandum (ADM) directing the realignment of the current acquisition management structure for all JTRS programs under the authority of a single JTRS Joint Program Executive Office (JPEO). The ADM states that any obligation or transfer of RDT&E funds, during the current year of execution, for radio, waveform, and common ancillary equipment development associated with any of the JTRS program elements will require the express approval of the JPEO.</p> <p>In November 2003, the Navy & Air Force Service Acquisition Executives directed the merger of Clusters 3 (Navy) and 4 (Air Force) to establish a combined JTRS Cluster, renamed Airborne, Maritime/Fixed Station JTRS (AMF JTRS). On January 21, 2004, USD (AT&L) signed an Acquisition Decision Memorandum (ADM) acknowledging the combination of the two clusters, as well as authorizing the release of the Pre-System Development and Demonstration (SDD) Request for Proposal (RFP) for the AMF JTRS program. Funding represents Navy's portion of AMF JTRS.</p> <p>The Airborne, Maritime/Fixed Station JTRS (AMF JTRS) will be designed to support communications readiness and mission success by providing military commanders with the ability to command, control and communicate with their forces via secure voice, video, and data media forms during all aspects of military operations. The AMF JTRS will be a hardware configurable and software definable radio (SDR) system that provides increased interoperability, flexibility and adaptability to support the varied mission requirements of the warfighter. The AMF JTRS system will provide radio sets that are software definable, multi-band, multi-mode capable, secure, network-centric, and able to provide simultaneous voice, data, and video communications over multiple frequency bands between 2 MegaHertz (MHz) and 2 GigaHertz (GHz), as well as scalable to meet the needs of multiple platforms. As a requirement, the AMF JTRS will operate with legacy equipment and waveforms currently used by civilian and military airborne, surface, subsurface, and fixed station platforms as well as incorporate new waveforms and Cryptographic Equipment Applications (CEAs) as they are developed. As a result of this fielding, legacy radios and cryptographic devices will eventually be phased out through the JTRS implementation effort. This Implementation effort is Navy-specific work being performed as part of the planned migration to transition to the JTRS capability. The Air Force Electronic Systems Center (AF/ESC), PEO C4I and Space, and the Joint Program Executive Office will fulfill the AMF JTRS requirements in a phased approach. Each phase will build on the technological achievements of its predecessor, while at the same time providing expanded capabilities (in both hardware and software). AMF JTRS will incorporate the following key concepts into its design: commonality across JTRS clusters, transformational communications, networking, automation and control, information gateways, and quality of service. The AMF JTRS procurement specifically involves the development of Joint Tactical Radio (JTR) Set and the integration of the Software Communication Architecture (SCA) Compliant waveforms and CEAs provided by the JTRS Joint Waveforms Program Office. This procurement also provides for platform integration support necessary for these capabilities to be integrated into the Maritime and Fixed Station platforms through the Service Integration Kits (SIK).</p> <p>Joint Task Force Wide Area Relay Network Program Enhancement (JTF WARNET) - This program is an NRL initiative that has grown from an Advanced Concept Technology Demonstration(ACTD). This program supports JTRS, CONOPS & Tactics, Techniques and Procedures (TTP) development, incorporates Intra-Battle Group Wireless Network (IBGWN) capabilities, supports ADNS Integration and supports Joint Translator Forwarder (JXF.)</p>							

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 5)

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5		PROJECT NUMBER AND NAME 3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)													
(U) B. Accomplishments/Planned Program															
<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="width: 30%;"></th> <th style="width: 20%;">FY 05</th> <th style="width: 20%;">FY 06</th> <th style="width: 30%;">FY 07</th> </tr> <tr> <td>AMF JTRS (Common)</td> <td>52.290</td> <td>77.458</td> <td>0.000</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> </tr> </table>					FY 05	FY 06	FY 07	AMF JTRS (Common)	52.290	77.458	0.000	RDT&E Articles Quantity			
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<p>FY05: Continued Pre-System Development & Demonstration phase. Began RFP development for the System Development & Demonstration (SDD) phase for the AMF JTRS system. Development engineering and management support for associated JTR system components.</p> <p>FY06: Complete Pre-System Development & Demonstration phase. Contract award for System Development and Demonstration Phase of development for the AMF JTRS system covering 2 MHz - 2GHz that meets JTRS ORD Joint Service Requirements. Development engineering and management support for associated JTR system components. Engineering and management support for Navy-specific JTRS implementation efforts (\$2.230).</p> <p>FY07: In FY 2007, Project No. 3073, Airborne, Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) efforts were transferred from Program Element (PE) 0604280N to PE 0604280A, to support the revised JTRS joint program development acquisition strategy.</p>															
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<p>FY05: Engineering and Management support for Navy-specific JTRS implementation efforts.</p> <p>FY06: Engineering and Management support for Navy-specific JTRS implementation efforts.</p> <p>FY07: In FY 2007, Project No. 3073, Airborne, Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) efforts were transferred from Program Element (PE) 0604280N to PE 0604280A, to support the revised JTRS joint program development acquisition strategy.</p>															

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5		PROJECT NUMBER AND NAME 3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)	
(U) B. Accomplishments/Planned Program			
	FY 05	FY 06	FY 07
JTF WARNET	0.000	7.571	0.000
RDT&E Articles Quantity			
<p>FY06: Joint Task Force Wide Area Relay Network Program Enhancement (JTF WARNET) - This program is a Navy Research Lab (NRL) initiative that has grown from an Advanced Concept Technology Demonstration (ACTD). This program supports JTRS, CONOPS & Tactics, Techniques and Procedures (TTP) development, incorporates Intra-Battle Group Wireless Network (IBGWN) capabilities, supports ADNS Integration and supports Joint Translator Forwarder (JXF.)</p>			

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Exhibit R-3 Cost Analysis (page 1)							DATE: February 2006					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			PE: 0604280N TITLE: JOINT TACTICAL RADIO SYS			3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
AMF JTRS Development - JTR System (Pre-SDD)	CPFF	The Boeing Company, Anaheim, CA/ Lockheed Martin, Manassas, VA	31.632	37.250	Nov-04	27.279				0.000	96.161	
AMF JTRS Development - JTR SET (SDD)	CPAF/IF	TBD				26.985	07/06			0.000	Continuing**	
MIDS JTRS HW/SW Development	CPIF	DLS Cedar Rapids, IA	8.563									
MIDS JTRS HW/SW Development	CPIF	ViaSat Inc. Carlsbad, CA	2.559									
H/W: DMR HF Power Amplifier	FFP	GDDS	2.800								2.800	
Systems Engineering - AMF JTRS	WX	SSC-SD	3.395	4.419		8.270				0.000	Continuing**	
Systems Engineering - AMF JTRS	WX	SSC-CH	4.951	4.653		7.182				0.000	Continuing**	
Systems Engineering - AMF JTRS	Various	Various	1.943	2.928		3.062				Continuing	Continuing**	
Systems Engineering - JTF WARNET	Various	Various				7.571					7.571	
Systems Engineering - JTRS Implementation -Navy Unique*	Various	Various	2.056	2.052		2.123				Continuing	Continuing	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			57.899	51.302		82.472		0.000		Continuing	Continuing	
Remarks:												
* Items marked with an asterisk (*) designate Navy unique tasks.												
** Funding for AMF JTRS efforts in FY 2007 and out have been transferred to PE 0604280A.												
Development Support											0.000	
Software Dev: DMR Build 6.4	FFP	GDDS	12.861								12.861	
Integrated Logistics Support - AMF JTRS	WX	SSC-CH	1.338	0.803		1.267		0.000		Continuing	Continuing**	
Configuration Management											0.000	
Studies & Analyses	Various	Various	0.356	0.000		0.000		0.000			0.356	
Technical Data											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			14.555	0.803		1.267		0.000		0.000	16.625	
Remarks:												

R-1 SHOPPING LIST - Item No. 100

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 8)

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: February 2006				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT PE: 0604280N TITLE: JOINT TACTICAL RADIO SYS			PROJECT NUMBER AND NAME 3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation											0.000	
Live Fire Test & Evaluation											0.000	
DMR Test & Evaluation (FOTE)	WX	SSC-SD	1.724								1.724	
DMR Test & Evaluation (FOTE)	WX	SSC-CH	1.732								1.732	
Test Assets											0.000	
Test Planning/Support - JTRS	Various	Various	0.904	1.003		2.491		0.000		Continuing	Continuing**	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			4.360	1.003		2.491		0.000		Continuing	Continuing	
Remarks: ** Funding for AMF JTRS efforts in FY 2007 and out have been transferred to PE 0604280A.												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	various	various	7.342	1.234		0.922		0.000		Continuing	Continuing**	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			7.342	1.234		0.922		0.000		Continuing	Continuing	
Remarks:												
Total Cost			84.156	54.342		87.152		0.000		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No. 100

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 9)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																DATE: February 2006																
APPROPRIATION/BUDGET / PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME																				
RDT&E, N /				PE: 0604280N				TITLE: JOINT TACTICAL RADIO SYSTEMS				3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)																				
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Acquisition Milestones																																
Contract Preparation																																
RFP Release																																
Contract Award																																
Prototype Phase (Pre-SDD)																																
Preliminary Design Review																																
System Development																																
System Critical Design Review																																
Test & Evaluation Milestones																																
DT/OT Certification																																
EDM's																																

R-1 SHOPPING LIST - Item No. 100

* Not required for Budget Activities 1, 2, 3, and 6

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail				AMF JTRS		DATE: February 2006				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT		PROJECT NUMBER AND NAME						
RDT&E, N / BA-5		PE: 0604280N TITLE: JOINT TACTICAL RADIC		3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)						
Schedule Profile			FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Prototype Phase			4Q							
System Design Review (SDR)										
Milestone B (MS-B)					2Q					
Contract Preparation			1Q							
RFP Release			2Q							
Contract Award Pre-SDD			4Q							
Contract Award SDD						1Q				
Preliminary Design Review (PDR)				4Q						
System Development						1Q				
Critical Design Review (CDR)						4Q				
Quality Design and Build										
Test Readiness Review (TRR)										
DT/OT Certification							4Q			
Eng Dev Model (EDM)							4Q			
Software Delivery 1XXSW										
Preproduction Readiness Review (PRR)										
EDM Radar Delivery - Flt Related										
Milestone C (MS C)								1Q		
Low Rate Initial Production I (LRIP I)								1Q		
Low Rate Initial Production II (LRIP II)										
Contractor Testing										
Operational Testing (OT-IIA)										
Software Delivery 2XXSW										
Operational Testing (OT-II)										
Developmental Testing (DT-IIC)										
Functional Configuration Audit (FCA)										
Low-Rate Initial Production I Delivery										
Technical Evaluation (TECHEVAL)										
Physical Configuration Audit										
Operational Evaluation (OT-II) (OPEVAL)										
Low-Rate Initail Production II Delivery										
Contract Award Production										
IOC										
Full Rate Production (FRP) Decision										1Q
Full Rate Production Start										
First Deployment										

R-1 SHOPPING LIST - Item No.

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Classification:

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding						DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS				PROJECT NUMBER AND NAME 3073 AMF JTRS		
Program Title	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011
X3073 Airborne, Maritime/Fixed Station JTRS (AMF JTRS)	0	5.805	0	0	0	0	0

Instructions:

1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability.
2. If not budgeted, provide the appropriate waiver authority.
3. For programs with waiver authority, identify the amounts on the contract by year.

R-1 SHOPPING LIST No. 100

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 12)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS			PROJECT NUMBER AND NAME 3020 MIDS JTRS			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Project Cost	21.794	78.946	1.153	0.000	0.000	0.000	0.000
X3020 Multifunctional Information Distribution System (MIDS JTRS Common)	21.794	77.056	0.000	0.000	0.000	0.000	0.000
X3020 Multifunctional Information Distribution System (MIDS JTRS Navy Unique)	0.000	1.890	1.153	0.000	0.000	0.000	0.000
RDT&E Articles Qty	13		0				13

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The MIDS-LVT is a jam-resistant, secure, digital (voice and data) information distribution system, enabling rapid integrated communications, navigation and identification for tactical and command and control operations. The technical objective of the MIDS JTRS program is to transform the current MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant JTRS, while maintaining current Link-16 and tactical air navigation system (TACAN) functionality. MIDS gathers data from multiple sources which provides the platform with a digital view of the battlefield. MIDS JTRS is designed to be plug-and-play interchangeable for U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, while accommodating future technologies and capabilities. Improvements such as Link-16 enhanced throughput, Link-16 frequency re-mapping, and programmable crypto will also be realized in the MIDS JTRS design. In addition to the Link-16 and TACAN functionality, the MIDS JTRS core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms currently in development with the JTRS Joint Waveforms Program Office. Total core terminal program requirements include: Terminal development, F/A-18 Level 0 integration, software hosting (Operating Environment/JTRS Joint Waveforms Program Office), Common Link Integration Processing (CLIP) Increment 1 embedding and production transition. MIDS JTRS efforts are comprised of both common and Navy-unique funded efforts. The Tactical Targeting Network Technology JTRS Platform Capability Package (TTNT JPCP) involves integration of an advanced low latency, high bandwidth, internet protocol-capable waveform that meets Time Sensitive Targeting Networking Technology requirements. TTNT JPCP program requirements include hardware and software changes, terminal development, qualification, and production transition. The TTNT JPCP is the integration of the TTNT waveform as the specific implementation of the Joint Airborne Networking - Tactical Edge (JAN-TE) waveform.

R-1 SHOPPING LIST - Item No. 100

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006																								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5		PROJECT NUMBER AND NAME 3020 MIDS JTRS																								
(U) B. Accomplishments/Planned Program <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"><tr><td style="width: 33%;"></td><td style="width: 16.5%; text-align: center;">FY 05</td><td style="width: 16.5%; text-align: center;">FY 06</td><td style="width: 16.5%; text-align: center;">FY 07</td></tr><tr><td>MIDS JTRS, Common Funding</td><td style="text-align: center;">21.794</td><td style="text-align: center;">77.056</td><td style="text-align: center;">0.000</td></tr><tr><td>RDT&E Articles Quantity</td><td style="text-align: center;">13</td><td></td><td></td></tr></table> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"><p>FY05: Completed Phase 2A specification development efforts for the Functional and Allocated baselines incorporating the latest National Security Agency architecture changes. Continued MIDS JTRS Phase 2B development effort and conducted Preliminary Design Review.</p><p>FY06: Complete detailed design review and hold Critical Design Review in Mar 06; complete SRU build and test efforts and begin terminal integration and test; and perform software hosting efforts associated with the Cluster 1 Operating Environment and Joint Waveforms Program Office.</p><p>FY07: In FY 2007, Project No. 3020 Multifunctional Information Distribution System Joint Tactical Radio System (MIDS JTRS) efforts were transferred from Program Element (PE) 0604280N to PE 0604280A, to support the revised JTRS joint program development acquisition strategy.</p></div> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"><tr><td style="width: 33%;"></td><td style="width: 16.5%; text-align: center;">FY 05</td><td style="width: 16.5%; text-align: center;">FY 06</td><td style="width: 16.5%; text-align: center;">FY 07</td></tr><tr><td>MIDS JTRS, Navy Unique Funding</td><td style="text-align: center;">0.000</td><td style="text-align: center;">1.890</td><td style="text-align: center;">1.153</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td></tr></table> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"><p>FY06: Start F/A-18 Level 0 integration to include integration preparation, Operational Flight Program changes and Engineering Change Proposal preparation.</p><p>FY07: Continue F/A-18 Level 0 integration.</p></div>				FY 05	FY 06	FY 07	MIDS JTRS, Common Funding	21.794	77.056	0.000	RDT&E Articles Quantity	13				FY 05	FY 06	FY 07	MIDS JTRS, Navy Unique Funding	0.000	1.890	1.153	RDT&E Articles Quantity			
	FY 05	FY 06	FY 07																							
MIDS JTRS, Common Funding	21.794	77.056	0.000																							
RDT&E Articles Quantity	13																									
	FY 05	FY 06	FY 07																							
MIDS JTRS, Navy Unique Funding	0.000	1.890	1.153																							
RDT&E Articles Quantity																										

R-1 SHOPPING LIST - Item No. 100

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE:		February 2006	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT							PROJECT NUMBER AND NAME				
RDT&E, N / BA-5		PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS							3020 MIDS JTRS				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY Cost	FY05 Cost	FY05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
MIDS JTRS HW/SW Development (CLIN 3000)	CPIF	Data Link Solutions Cedar Rapids, IA		0.936	Dec-04	31.836	Nov-05	0.000		0.000	32.772		
MIDS JTRS HW/SW Development (CLIN 3000)	CPIF	ViaSat Inc. Carlsbad, CA		11.000	Dec-04	31.925	Nov-05	0.000		0.000	42.925		
MIDS JTRS Software Hosting	CPIF					8.100	Jul-06	0.000		0.000	8.100		
MIDS JTRS Spec. Development (CLIN 1100)	FFP	Data Link Solutions Cedar Rapids, IA		1.383	Feb-05	0.000		0.000		0.000	1.383		
MIDS JTRS Spec. Development (CLIN 1100)	FFP	ViaSat Inc. Carlsbad, CA		0.704	Mar-05	0.000		0.000		0.000	0.704		
MIDS JTRS Proposal Prep (CLIN 3025)	FFP	Data Link Solutions Cedar Rapids, IA		0.600	Mar-05	0.000		0.000		0.000	0.600		
MIDS JTRS Proposal Prep (CLIN 3025)	FFP	ViaSat Inc. Carlsbad, CA		1.774	Mar-05	0.000		0.000		0.000	1.774		
Systems Engineering	various			3.590	Jan-05	3.695	Jan-06	0.000		0.000	7.285		
Systems Engineering	WX	SSC-SD		1.657	Jan-05	1.400	Jan-06	0.000		0.000	3.057		
Subtotal Product Development				21.644		76.956		0.000		0.000	98.600		
Remarks:													
* F/A-18 Level 0 Development Support (Unique)						1.527	Nov-05	1.153	Nov-06	0.000	2.680		
* F/A-18 Level 0 Integrated Logistics Support (Unique)						0.300	Nov-05	0.000		0.000	0.300		
Subtotal Support				0.000		1.827		1.153		0.000	2.980		
Remarks:													
* Items marked with an asterisk (*) designate Navy unique tasks.													

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-5		PROGRAM ELEMENT PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS							PROJECT NUMBER AND NAME 3020 MIDS JTRS			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY's Cost	FY05 Cost	FY05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
* F/A-18 Level 0 Developmental Test & Evaluation (*Unique)						0.063	Nov-05	0.000		0.000	0.063	
Subtotal T&E				0.000		0.063		0.000		0.000	0.063	
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support												
Travel				0.150		0.100		0.000		0.000	0.250	
Transportation												
SBIR Assessment												
Subtotal Management				0.150		0.100		0.000		0.000	0.250	
Remarks: * Items marked with an asterisk (*) designate Navy unique tasks.												
Total Cost				21.794		78.946		1.153		0.000	101.893	

R-1 SHOPPING LIST - Item No.

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:				February 2006					
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME									
RDT&E, N / BA-5												PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS												3020 MIDS JTRS									
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
MIDS JTRS Migration Core Terminal																																	
Test & Evaluation Milestones F/A-18 Level 0 Integration TECHEVAL OPEVAL																																	
MIDS JTRS TTNT JPCP																																	

R-1 SHOPPING LIST - Item No. 100

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CLASSIFICATION:

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Exhibit R-4a, Schedule Detail						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS			PROJECT NUMBER AND NAME 3020 MIDS JTRS			
Schedule Profile			FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
MIDS JTRS Migration Core Terminal									
Phase 2A Extension: Specification Development			1Q	3Q					
Phase 2B: Design, Development, Fabrication and Qualification									
System Development				1Q		4Q			
Preliminary Design Review (PDR)				4Q					
Critical Design Review (CDR)					2Q				
Quality Design and Build					2Q	2Q			
Test Readiness Review (TRR)						2Q			
Contractor Testing (FAQT)						2Q, 4Q			
Government Testing						4Q			
Production Verification Terminal Delivery (PVT)						4Q	1Q		
Production Transition Terminal Delivery (PTT)							1Q, 2Q		
Test and Evaluation									
F/A-18 Level 0 Integration									
Technical Evaluation (TECHEVAL)						4Q	4Q		
Operational Evaluation (OPEVAL)							4Q	1Q	
Initial Operating Capability								2Q	
Full Rate Production Decision								2Q	
MIDS JTRS TTNT JPCP									
Phase 2C: Specification Development					2Q	1Q			
Phase 2D: Design, Development, Fabrication and Qualification									
System Development						1Q		1Q	
Preliminary Design Review (PDR)						3Q			
Critical Design Review (CDR)							1Q		
Quality Design and Build							1Q, 4Q		
Test Readiness Review (TRR)							4Q		
Contractor Testing (FAQT)							4Q	1Q	
Government Testing								1Q, 2Q	
Production Verification Terminal Delivery (PVT)								2Q	

R-1 SHOPPING LIST - Item No.

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UNCLASSIFIED

UNCLASSIFIED

Classification:

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding						DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS			PROJECT NUMBER AND NAME 3020 MIDS JTRS		
Program Title	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011
X3020 Multifunctional Information Distribution System (MIDS JTRS)	4,042	5,589	-				
<p><u>Instructions:</u></p> <ol style="list-style-type: none"> 1. For all ACAT 1 programs with RDT&E funding, indicate the funds by year budgeted for termination liability. 2. If not budgeted, provide the appropriate waiver authority. 3. For programs with waiver authority, identify the amounts on the contract by year. 							

R-1 SHOPPING LIST No. 100

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 19)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME PE: 0604280N TITLE: JOINT TACTICAL RADIO SYS		PROJECT NUMBER AND NAME 9999 Congressional Increases			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total Project Cost	1.900	2.400					
9999 Digital Modular Radio (DMR)	1.900	2.400					

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Digital Modular Radio (DMR) provides improvements for fleet radio requirements in the HF, VHF, and UHF frequency band. The DMR replaces and will be interoperable and backwards compatible with legacy systems. The DMR is a digital, modular, software programmable, multi-channel, multi-function and multi-band (2MHz-2 GHz) radio system.

R-1 SHOPPING LIST - Item No. 99

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 20)

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-5	PROGRAM ELEMENT NUMBER AND NAME PE: 0604280N TITLE: JOINT TACTICAL RADIO SYSTEMS	PROJECT NUMBER AND NAME 9999 Congressional Increases

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
DMR (9378)	1.900	2.400	
RDT&E Articles Quantity			

FY05: Continued development of software 6.4 to include Ultra High Frequency Satellite Communications (UHF SATCOM) Military Standard (MIL-STD)-188-181B Optional Modes, KG-84C/Over-The-Air-Rekey (OTAR) KG-84A Crypto emulation, Single Channel Ground & Airborne Radio System (SINCGARS) Electronic Remote Fill (ERF) Capability, High Frequency (HF) Transmit/Receive Waveform Capability, Cypher Test/Plain Test Capability, Port to Port Switching Capability. Continue High Frequency Power Amplifier (HFPA) development. (\$1.900) **FY06:** Continue development of software 6.4 to include updating the Interactive Electronic Technical Manuals (IETM) to Extensible Markup Language (XML) format required by Deputy Assistant Secretary of Navy-Logistics (DASN-L); support development of Cover Radio Teletype (CRATT) as required by Military Standard (MIL-STD) 110A for UHF and upgrade 6.4 to be

R-1 SHOPPING LIST - Item No. 99

UNCLASSIFIED

Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 21)